

IN THE ABSTRACT:

Please delete the Abstract and insert the following Abstract therefore.

A sub-network system includes line modules configured to receive bridged traffic signals over individual corresponding channels. The line modules are grouped into sets at a lower protection layer and an upper protection layer. The line modules are activated/deactivated based on different upper and lower protection schemes associated with the upper and lower protection layers. The sub-network also includes state maps associated with each of the line modules. The state maps store state data that activates and deactivates the line modules. The state maps are updated in accordance with the upper protection scheme to perform inter-leg switching between a first line module and a second line module. A network control module interconnected with the line modules performs inter-leg switching by updating the state data in the state maps for corresponding line modules in associated working and protection legs.